



Laboratory for Atmospheres 2007 Technical Highlights



Cover Caption: Field campaigns are a central element in the research carried out by Laboratory scientists. During 2007, the Tropical Composition, Cloud, and Climate Coupling (TC4) mission was the major effort. The cover photo is a group picture of participants in the DC8 portion of the mission. Over 350 people from NASA, NOAA, NCAR, universities, Costa Rica, and Panama directly participated in TC4. NASA's DC-8 "Flying Laboratory" carried a complement of 26 instruments including upward and downward pointing lidars (ozone, water vapor, and aerosols) and radiometers, as well as instruments for *in situ* measurements of gases, and cloud and aerosol particles. The DC-8 was key for Aura validation objectives as it was able to underfly the afternoon Aura overpass, which was not possible for other TC4 aircraft, the ER-2 and WB-57, because of typical afternoon weather conditions at the airfield.

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